

Toyota OBDII Trouble Codes

Data from various websites and FSM's.

Published July 2010. v0.1.0

P0001-P0099 — Fuel / Air Metering & Auxiliary Emission Controls

- P0001 Fuel Volume Regulator Control Circuit/Open
P0002 Fuel Volume Regulator Control Circuit Range/Performance
P0003 Fuel Volume Regulator Control Circuit Low
P0004 Fuel Volume Regulator Control Circuit High
P0005 Fuel Shutoff Valve "A" Control Circuit/Open
P0006 Fuel Shutoff Valve "A" Control Circuit Low
P0007 Fuel Shutoff Valve "A" Control Circuit High
P0008 Engine Positions System Performance Bank 1
P0009 Engine Position System Performance Bank 2
P0010 "A" Camshaft Position Actuator Circuit (Bank 1)
P0011 "A" Camshaft Position - Timing Over-Advanced or System Performance (Bank 1)
P0012 "A" Camshaft Position - Timing Over-Retarded (Bank 1)
P0013 "B" Camshaft Position - Actuator Circuit (Bank 1)
P0014 "B" Camshaft Position - Timing Over-Advanced or System Performance (Bank 1)
P0015 "B" Camshaft Position - Timing Over-Retarded (Bank 1)
P0016 Crankshaft Position - Camshaft Position Correlation (Bank 1 Sensor A)
P0017 Crankshaft Position - Camshaft Position Correlation (Bank 1 Sensor B)
P0018 Crankshaft Position - Camshaft Position Correlation (Bank 2 Sensor A)
P0019 Crankshaft Position - Camshaft Position Correlation (Bank 2 Sensor B)
P0020 "A" Camshaft Position Actuator Circuit (Bank 2)
P0021 "A" Camshaft Position - Timing Over-Advanced or System Performance (Bank 2)
P0022 "A" Camshaft Position - Timing Over-Retarded (Bank 2)
P0023 "B" Camshaft Position - Actuator Circuit (Bank 2) - See Trouble Code P0020
P0024 "B" Camshaft Position - Timing Over-Advanced or System Performance (Bank 2)
P0025 "B" Camshaft Position - Timing Over-Retarded (Bank 2)
P0026 Intake Valve Control Solenoid Circuit Range/Performance Bank 1
P0027 Exhaust Valve Control solenoid Circuit Range/Performance Bank 1

- P0082 Intake Valve Control Solenoid Circuit
P0083 Intake Valve Control Solenoid Circuit
P0084 Exhaust Valve Control Solenoid Circuit
P0085 Exhaust Valve Control Solenoid Circuit
P0086 Exhaust Valve Control Solenoid Circuit
P0087 Fuel Rail/System Pressure - Too Low
P0088 Fuel Rail/System Pressure - Too High
P0089 Fuel Pressure Regulator 1 Performance
P0090 Fuel Pressure Regulator 1 Control Circuit
P0091 Fuel Pressure Regulator 1 Control Circuit
P0092 Fuel Pressure Regulator 1 Control Circuit
P0093 Fuel System Leak Detected - Large Leak
P0094 Fuel System Leak Detected - Small Leak
P0095 Intake Air Temperature Sensor 2 Circuit
P0096 Intake Air Temperature Sensor 2 Circuit
P0097 Intake Air Temperature Sensor 2 Circuit
P0098 Intake Air Temperature Sensor 2 Circuit
P0099 Intake Air Temperature Sensor 2 Circuit

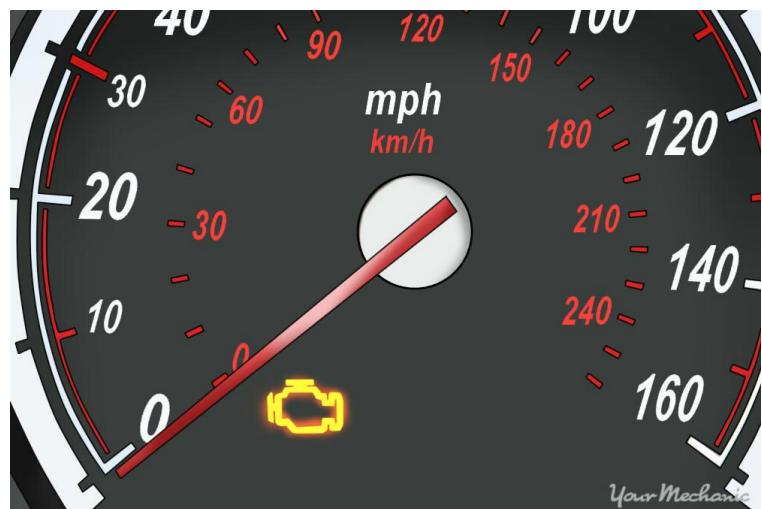
P0100-P0199 — Fuel and Air System

- P0100 Mass or Volume Air Flow Circuit Malfunct
P0101 Mass or Volume Air Flow Circuit Range
P0102 Mass or Volume Air Flow Circuit Low
P0103 Mass or Volume Air Flow Circuit High
P0104 Mass or Volume Air Flow Circuit Interference
P0105 Manifold Absolute Pressure/Barometric
P0106 Manifold Absolute Pressure/Barometric
P0107 Manifold Absolute Pressure/Barometric
P0108 Manifold Absolute Pressure/Barometric
P0109 Manifold Absolute Pressure/Barometric
P0110 Intake Air Temperature Circuit Malfunct

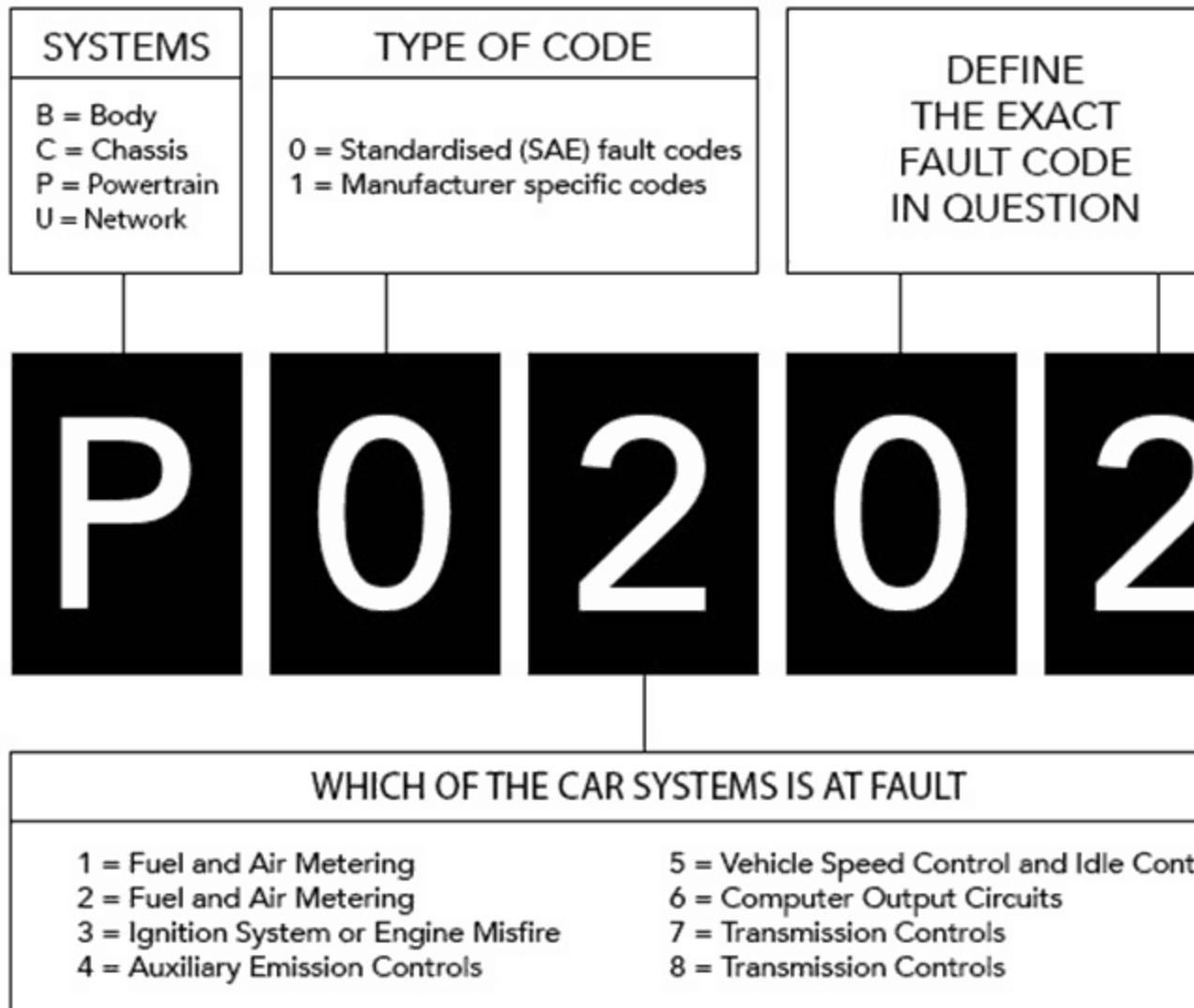
Diagnostic Trouble Code (DTC) Descriptions

P0133 - HO2S Sensor Circuit Slow Response (HO2S-11)	The HEGO Monitor checks the HO2S Sensor frequency and amplitude. If during testing the frequency and amplitude were to fall below a calibrated limit, the test will fail.	<ul style="list-style-type: none"> • Contaminated HO2S sensor. • Exhaust leaks. • Shorted /open wiring. • Improper fueling. • MAF sensor. • Deteriorating HO2S sensor. • Inlet air leaks. 	Access HO2S test results from the Generic OBD-II menu to verify DTC.
P0135 - HO2S Sensor Circuit Malfunction (HO2S-11)	During testing the HO2S Heaters are checked for opens/shorts and excessive current draw. The test fails when current draw exceeds a calibrated limit and/or an open or short is detected.	<ul style="list-style-type: none"> • Short to VPWR in harness or HO2S. • Water in harness connector. • Open VPWR circuit. • Open GND circuit. • Low battery voltage. • Corrosion or poor mating terminals and wiring • Damaged HO2S heater. • Damaged PCM. 	<ul style="list-style-type: none"> ■ wiring. ■ Damaged HO2S heater. ■ Damaged PCM.
P0136 - HO2S Sensor Circuit Malfunction (HO2S-12)	The downstream HO2S sensor(s) are continuously checked for maximum and minimum voltages. The test fails when the voltages fail to meet the calibrated limits.	<ul style="list-style-type: none"> • Pinched, shorted, and corroded wiring and pins. • Crossed sensor wires. • Exhaust leaks. • Contaminated or damaged sensor. 	
P0141 - HO2S Sensor Circuit Malfunction (HO2S-125)	See DTC P0135		
P0151 - HO2S Sensor Circuit Out of Range Low Voltage (HO2S-21)	See DTC P0131		
P0153 - HO2S Sensor Circuit Slow Response (HO2S-21)	See DTC P0133.		

DTC	Description	Possible Causes	Diagnostic Aides



DIAGNOSTIC TROUBLE CODES EXAMPLE



OBD2 FAULT CODE

P 0 0 1 0

Symptoms and Solutions



Diagnostic Trouble Code (DTC) Descriptions

DTC	Description	Possible Causes	Diagnostic Aides
P0102 - Mass Air Flow (MAF) Circuit Low Input	The MAF sensor circuit is monitored by the PCM for low air flow (or voltage) input through the comprehensive component monitor (CCM). If during key ON engine running the air flow (or voltage) changes below a minimum calibrated limit, the test fails.	<ul style="list-style-type: none"> • MAF sensor disconnected • MAF circuit open to PCM • VPWR open to MAF sensor • PWR GND open to MAF sensor • MAF RTN circuit open to PCM • MAF circuit shorted to GND • Intake air leak (near MAF sensor) • A closed [throttle indication throttle position (TP) sensor system] • Damaged MAF sensor • Damaged PCM 	A MAF V PID (MAF PID) reading less than 0.23 volts (Refer to equivalent grams/second chart in Pinpoint Test DC) in continuous memory or key ON and engine running indicates a hard fault.
P0103 - Mass Air Flow (MAF) Circuit High Input	The MAF sensor circuit is monitored by the PCM for high air flow (or voltage) input through the comprehensive component monitor (CCM). If during key ON engine OFF or key ON engine running the air flow (or voltage) changes above a maximum calibrated limit, the test fails.	<ul style="list-style-type: none"> • MAF sensor screen is blocked • MAF circuit shorted to VPWR • Damaged MAF sensor • Damaged PCM 	A MAF V PID (MAF PID) reading less than 4.6 volts (Refer to equivalent grams/second chart in Pinpoint Test DC) in continuous memory or key ON and engine running indicates a hard fault.
P0106 - Barometric (BARO) Pressure Sensor Circuit Performance	Baro sensor input to the PCM is monitored and is not within the calibrated value.	<ul style="list-style-type: none"> • Slow responding BARO sensor • Electrical circuit failure • Damaged BARO sensor • Damaged PCM 	<ul style="list-style-type: none"> ■ VREF voltage should be between 4.0 and 6.0 volts ■ PID reading is in frequency